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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,397	05/31/2001	Yoshiki Nakagawa	21581/0271	8066

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,397

Applicant(s)

NAKAGAWA ET AL.

Examiner

Margaret G. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 to 22, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13 to 22, 26, 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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1. Claims 13 to 22 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are indefinite because the scope of the newly added phrase "poorly polymerizable alkenyl groups" is indefinite. This clearly is a subjective term and it is not clear what is considered to be a poorly polymerizable group as compared to any other polymerizable group. The metes and bounds of these claims are unclear. The specification provides three examples of compounds having at least two poorly polymerizable alkenyl groups but this fails to adequately define the term.

For the record the Examiner notes that claim 26 is not included in this rejection since limiting the compound having at least two poorly polymerizable alkenyl groups to those recited clearly establishes the breadth of the claim.

2. Claim 27 is objected to because of the following informalities: This claim depends, in the alternative, on a canceled claim. Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 13 to 22 and 27 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kusakabe et al. '369.

As in previous claim 13, the instant claims are product by process claims. Claim 13 has been amended to include the addition of a compound having at least two "poorly polymerizable" alkenyl groups in the synthesis of the vinyl polymer. Kusakabe et al. fail to specifically teach this compound (the definition of which is unclear). Reading this phrase in light of the passages in the specification cited by applicants, it appears that this compound is used to form terminal alkenyl groups in the polymer. These terminal groups are then hydrosilylated to form the silyl terminated polymer. Patentees also teach a vinyl terminated polymer that is subsequently hydrosilylated to form the silyl terminated polymer.

As claimed, there does not appear to be anything that distinguishes the alkenyl terminated polymer in this process from that in the prior art. That is, both the reaction in the prior art and the reaction in the product by process claim result in a vinyl polymer product having terminal, reactive, alkenyl groups. Since the compound having at least two poorly polymerizable alkenyl groups reacts to form vinyl terminal groups which are subsequently reacted, it is unclear how this process limitation results in an inherently different product. Applicants have not provided any evidence, or indeed even argued, that this language distinguishes the claimed product per se from the product in the prior art. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See MPEP 2113 which details the appropriateness of a rejection under 35 USC 102/103 when making a product by process type rejection.

6. The Examiner notes that she has not included claim 26 in this rejection, as it does appear that a product prepared by this process will inherently be different from that

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in Kusakabe et al. Specifically, the prior art fails to teach or suggest these reactants in the process of making the vinyl polymer.

7. The Examiner notes that applicants' amendment, including the requirement that a compound having at least two poorly polymerizable alkenyl groups be added, has necessitated this new ground of rejection.

8. Claims 13 to 21, 26 and 27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 66 of copending Application No. 09/786,325. Although the conflicting claims are not identical, they are not patentably distinct from each other. Claim 66 is a product by process claim in which a vinyl polymer (one prepared by living radical polymerization) having silanol terminal group is prepared. The method in process claim 56 includes the addition of a compound having at least two poorly polymerizable alkenyl groups in the preparation of a vinyl polymer having terminal alkenyl groups, followed by the hydrosilylation of a silicon compound having Si bonded hydrolyzable groups. In claim 56, these groups are hydrolyzed, thereby creating SiOH groups which meet the definition of Y in claim 13. On the other hand, the product of claim 57 would appear to be the same as that claimed, albeit prepared by forming the terminal alkenyl groups on the vinyl polymer in a different manner. Again the silanol terminal groups in claim 57 meet the definition of Y in the instant claim.

Thus, the products in claim 66 appears to be the same as instant claim 13, with the exception that claim 66 does not teach a molecular weight ratio of less than 1.8 or a molecular weight range as claimed.

Regarding the first difference, note that the process in claims 56 and 57 embrace the preparation of a polymer having this ratio (as reflected by claim 61 in '325). Also, as this process is defined by the specification, it is clear that the process in '325 inherently produces a molecular weight distribution as claimed. To this extent the teachings on page 11, lines 8 to 19, of the specification of 09/786,325, teach a property that will

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inherently be associated with the product in the process claims. This also meets the requirements of instant claims 14 to 16.

Regarding the second difference, the Examiner notes that the claimed range is extremely broad. Adjusting the molecular weight of the polymer in '325 such that it falls within the scope of this claim would have been obvious and within routine skill of the ordinary artisan. See for instance MPEP 2144.05 (II), Optimization of Ranges. Note too page 9 of the specification in '325. Reading the breadth of the vinyl polymer in claim 66 in light of the specification, it is clear that such a polymer embraces this molecular weight range. Again the Examiner is relying on the specification in '325 only to the extent that it is used to support and help define what is embraced by the claims therein.

For claims 17 and 18 note that the process and thus the product in '325 embrace such reactants. See for instance claim 58. The skilled artisan would have been motivated to select a (meth)acrylate monomer from the small number of species founding claim 58 of '325, rendering obvious such a selection.

Claim 19 is met by claim 57 in '325. Note too that claim 56 embraces such a polymerization (see claim 62). Claim 20 is met by claim 57 in '325 as well. The silanol group in '325 fully meets the requirement of claim 21. Finally with regard to claim 26 the Examiner notes the process in claim 57 will result in a vinyl terminal group having from 1 to 20 carbon atoms attached to the terminal alkenyl group. This provides adequate motivation for the skilled artisan to find vinyl polymers having a carbon chain of 4, 6 or 8 atoms attached to the terminal vinyl polymers (which will be the resulting polymer in claim 26) to have been obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

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1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
2/2/05